

ppl. No. 09/839,574; Group Art Unit: 1646  
 kt. No. 1530.0180002/EKS/EIH;  
 inventors: Manthorpe *et al* ; Tel: 202/371-2600  
 title: Compositions and Methods for in vivo Delivery of  
 Oligonucleotide-Based Therapeutics

PLASMID NAME	GENE	PARENTAL PROMOTOR/ TERMINATOR PLASMID ENHANCER
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VR1223	FIREFLY LUX	VR1012*	CMV	BGH
VR1412	BACTERIAL LACZ	VR1012*	CMV	BGH
VR2901	MOUSE EPO	VR1012*	CMV	BGH
VR2996	MOUSE EPO	VR1012	MV/Desmin	BGH
VR3301	HUMAN SEAP	VR1012*	CMV	BGH
VR3502	RAT PROINSULIN	VR1012*	CMV	BGH
VR4151	HUMAN IFN-OMEGA	VR1055	CMV	mRBG
VR4700	INFLUENZA NP	VR1255**	CMV	mRBG
VR1418	BACTERIAL LACZ	VR1043	RSV	BGH
VR1255	FIREFLY LUX	VR1223	CMV	mRBG

## INTERMEDIATE PLASMIDS

VR1012	NONE	V1J***	CMV	BGH
VR1043	NONE	VR1343	RSV	BGH
VR1055	NONE	VR1255	CMV	mRBG

FIG.1

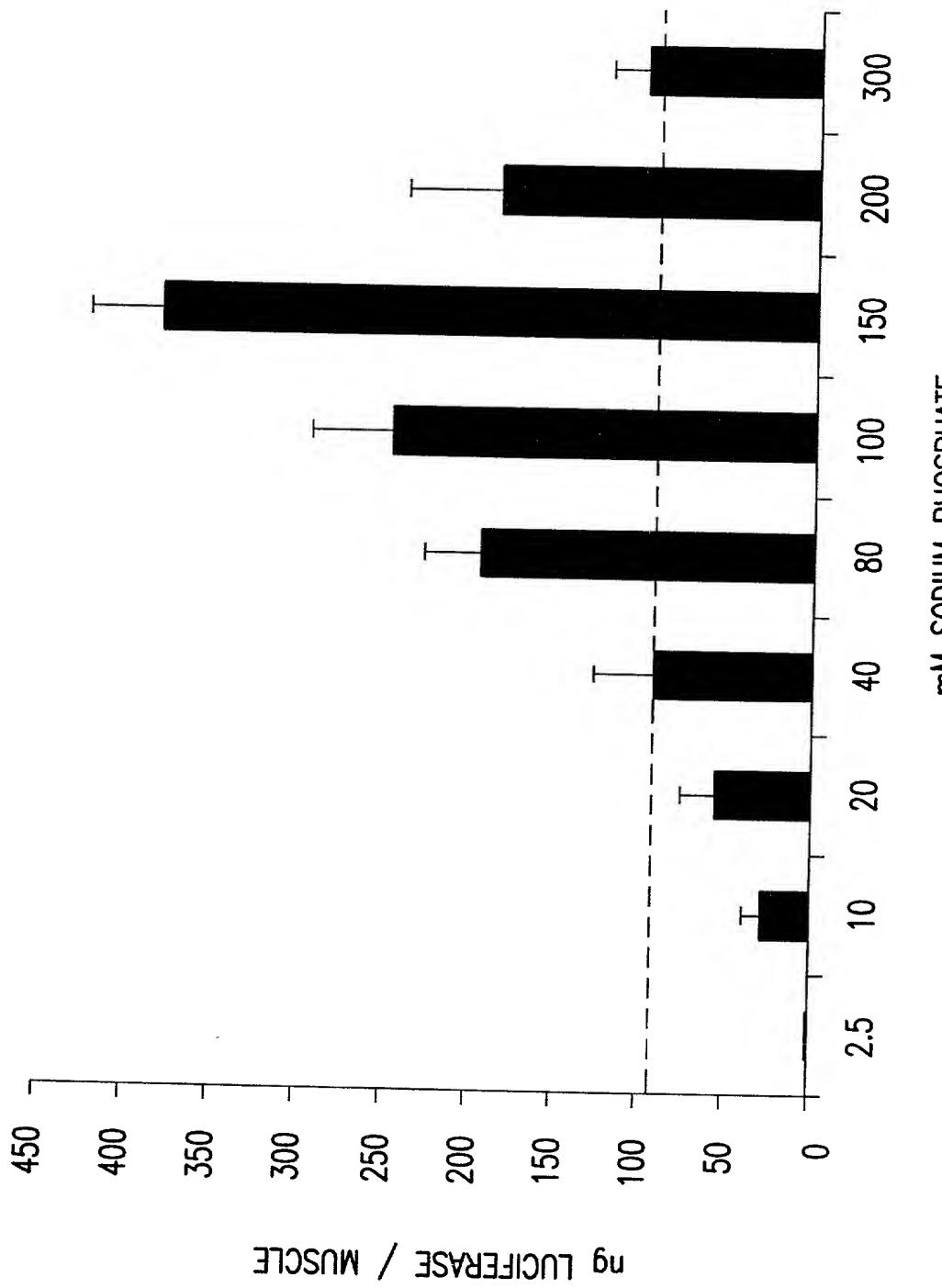


FIG. 2A

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Appl. No. 09/839,574; Group Amt Unit: 1646  
 Invntrors: Mianthioppe *et al.*; Tel: 202/371-2600  
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 Polynucleotide-Based Therapeutics

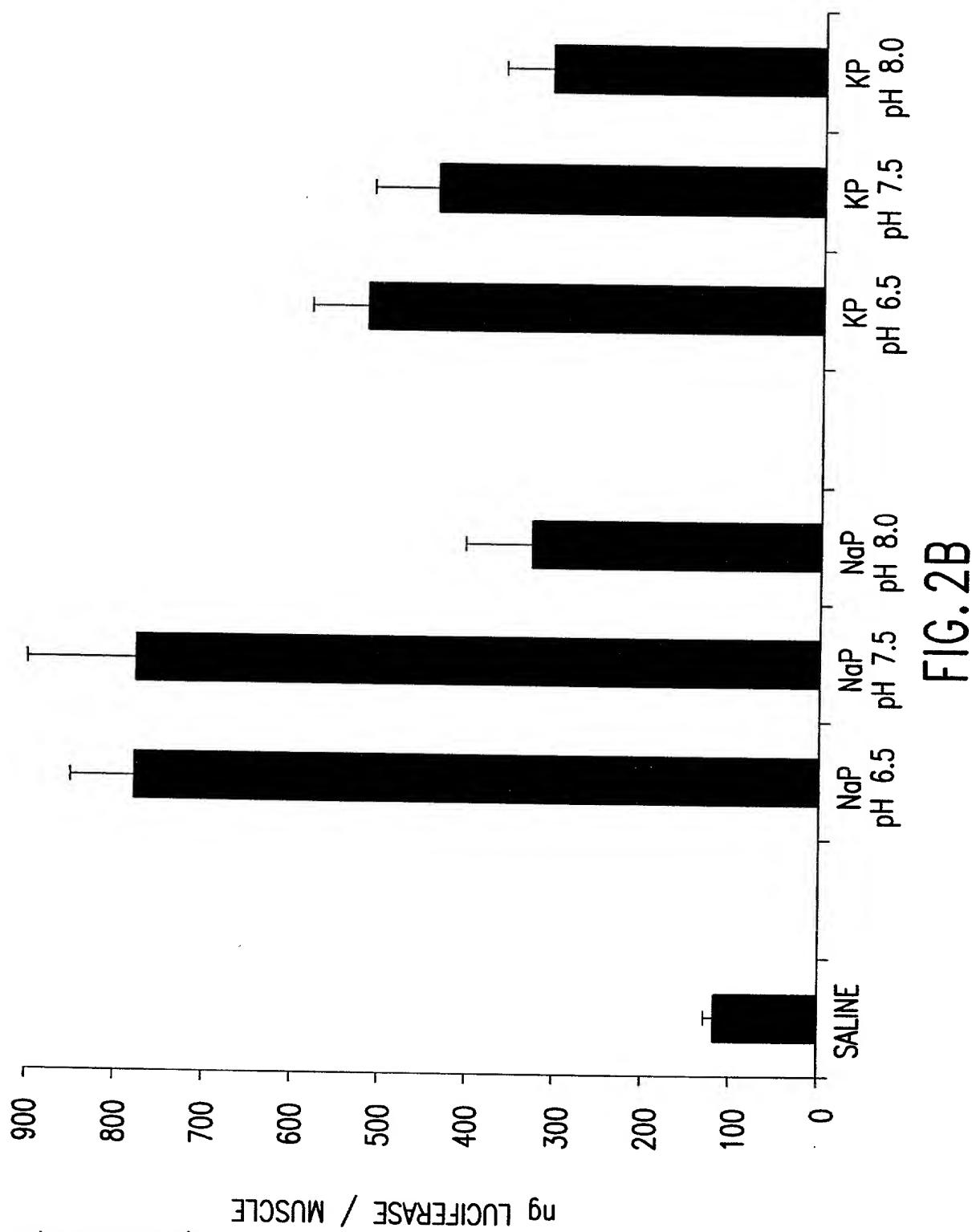


FIG. 2B

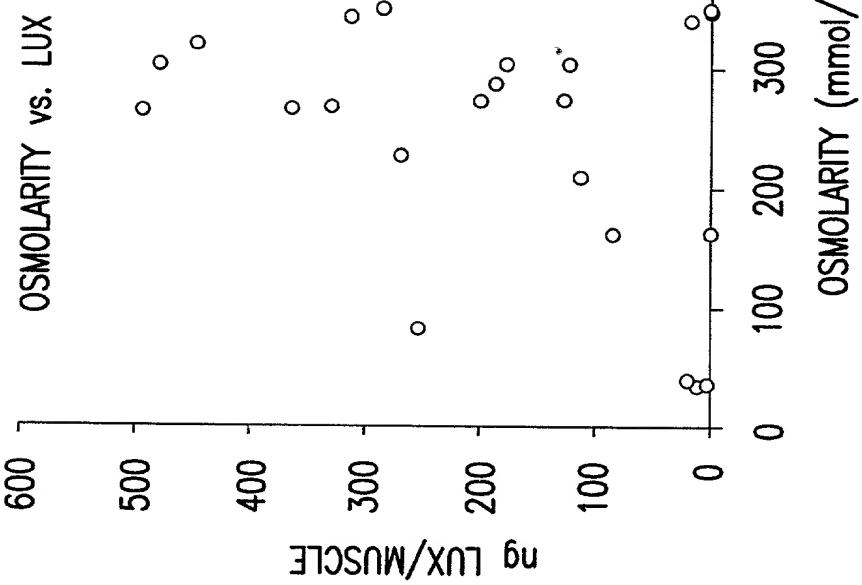
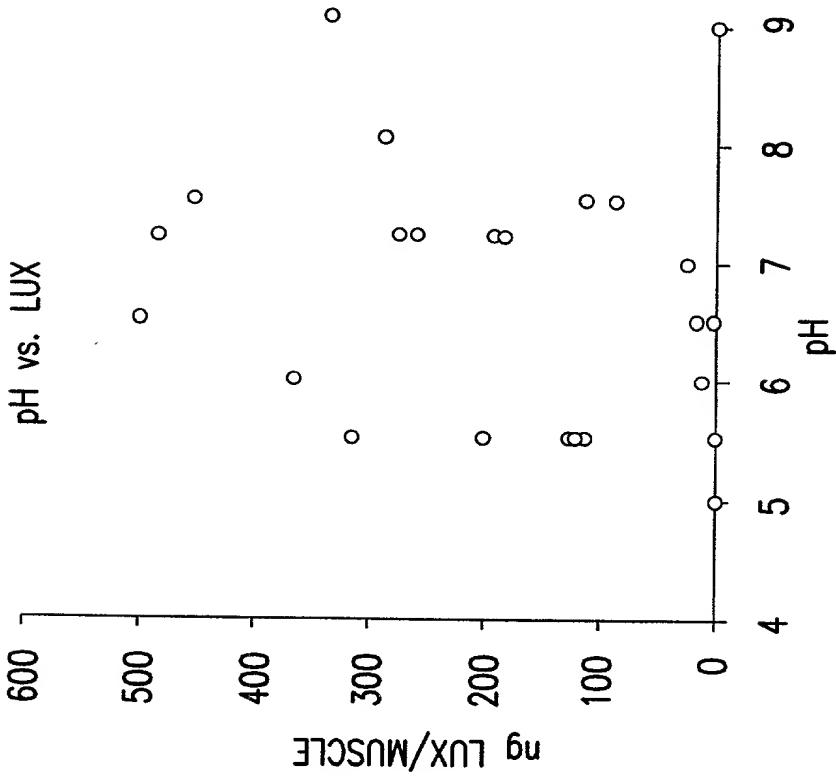


FIG. 2C

FIG. 2D

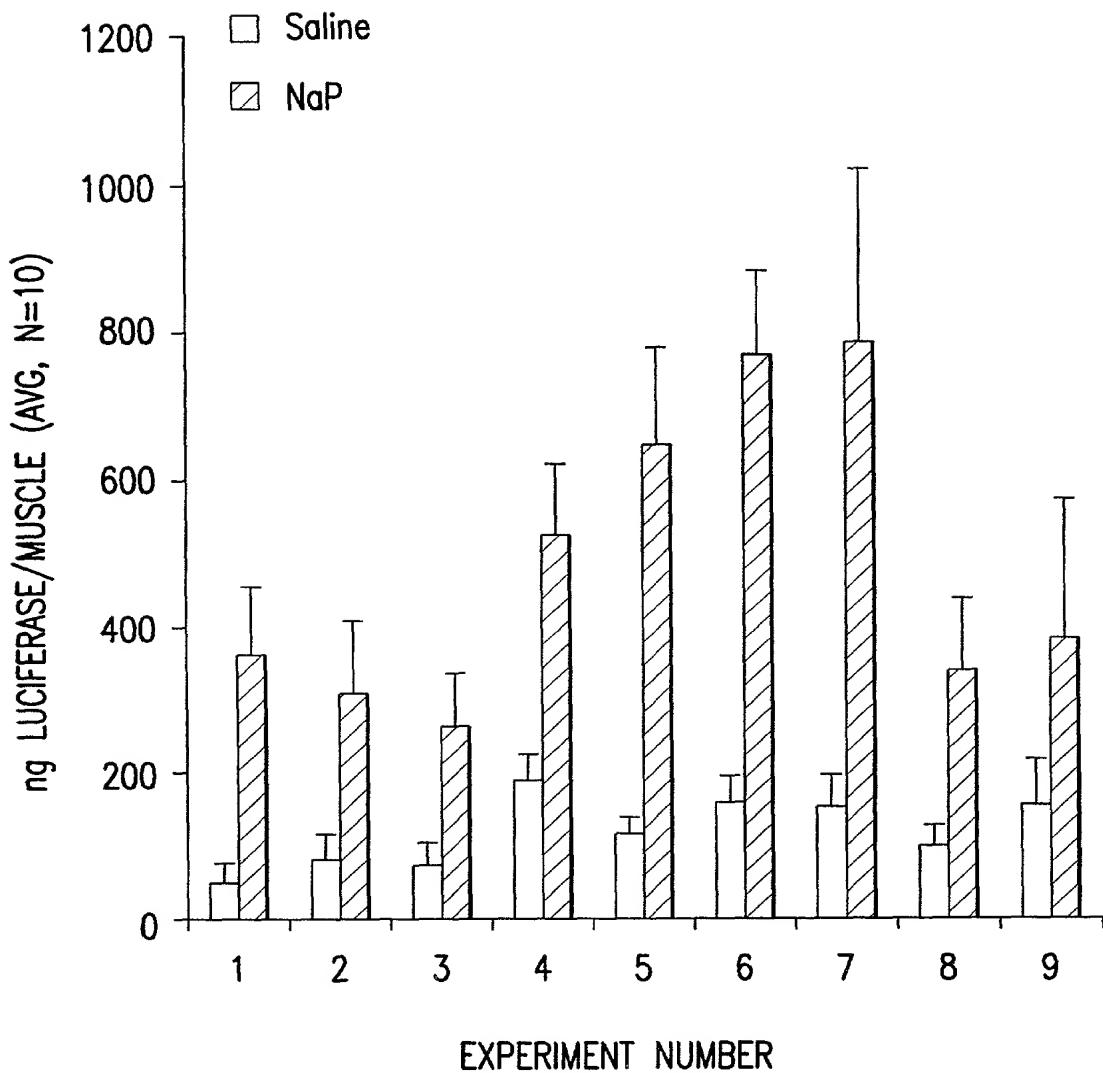


FIG.3



FIG. 4A

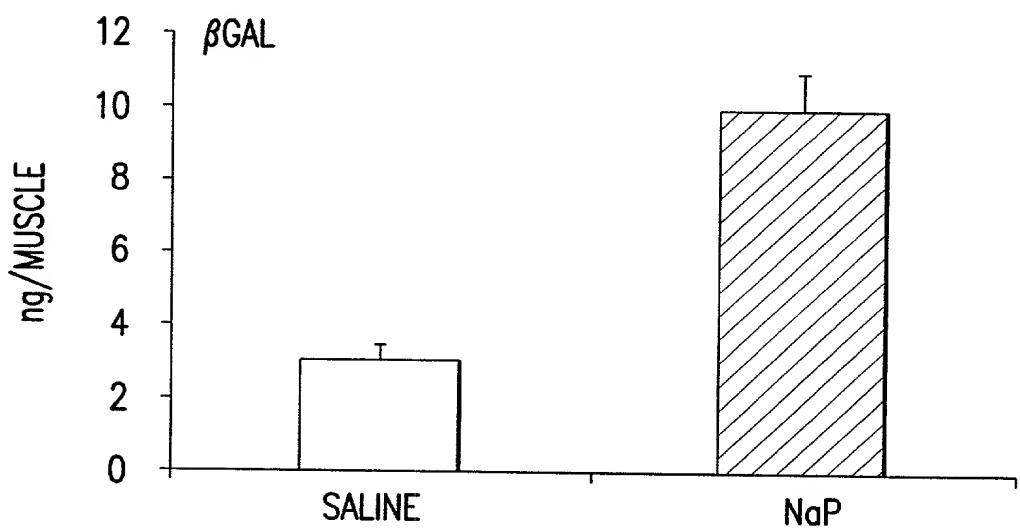


FIG. 4B

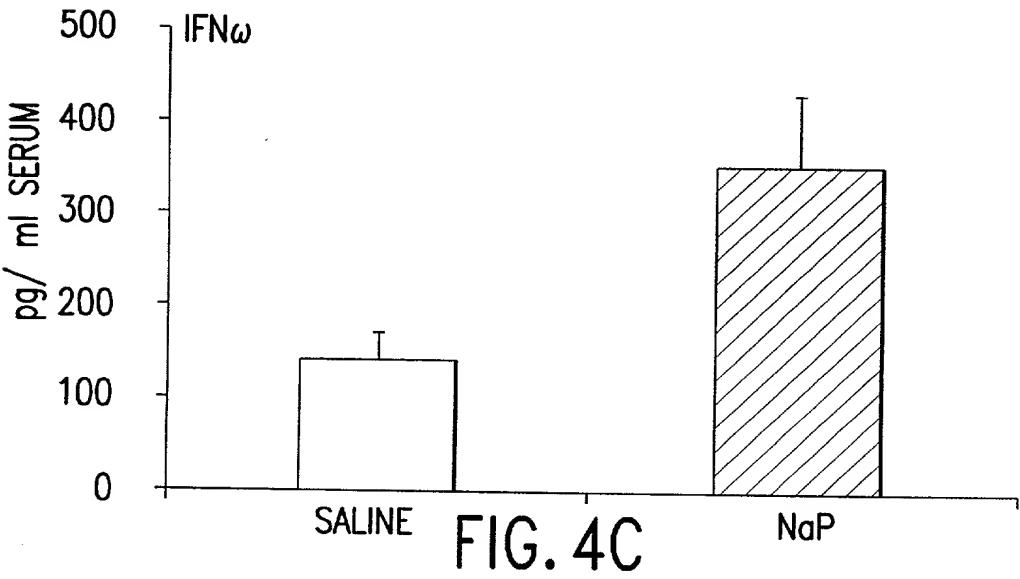


FIG. 4C

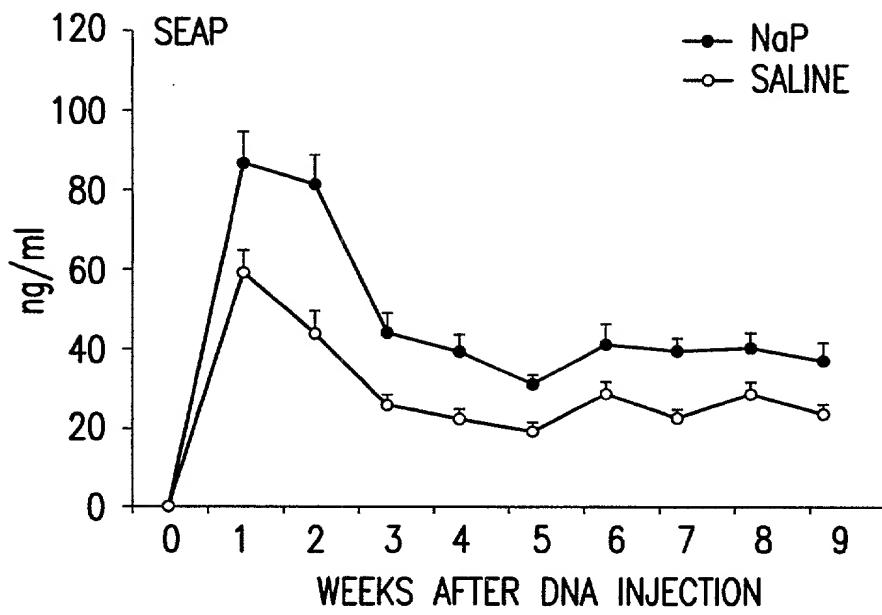


FIG. 5A

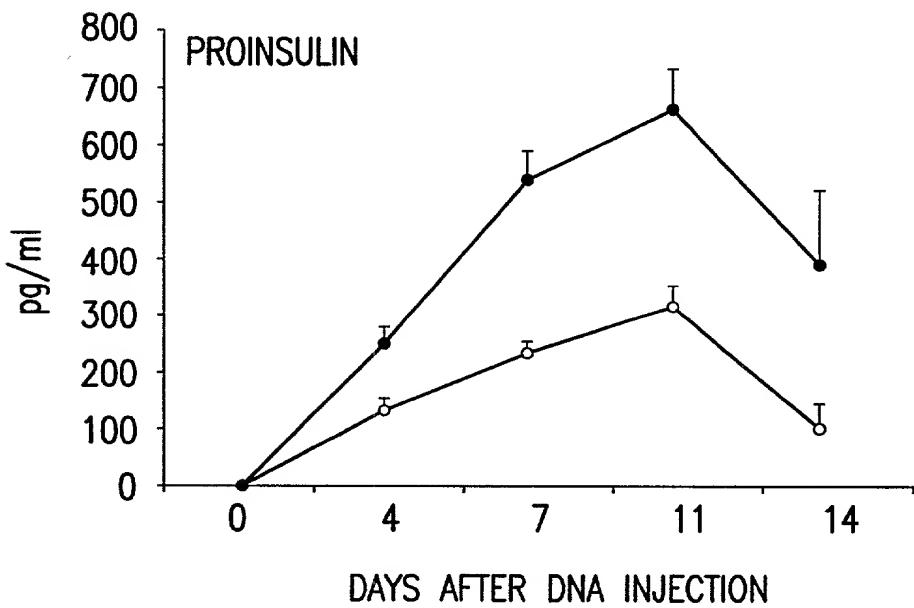


FIG. 5B

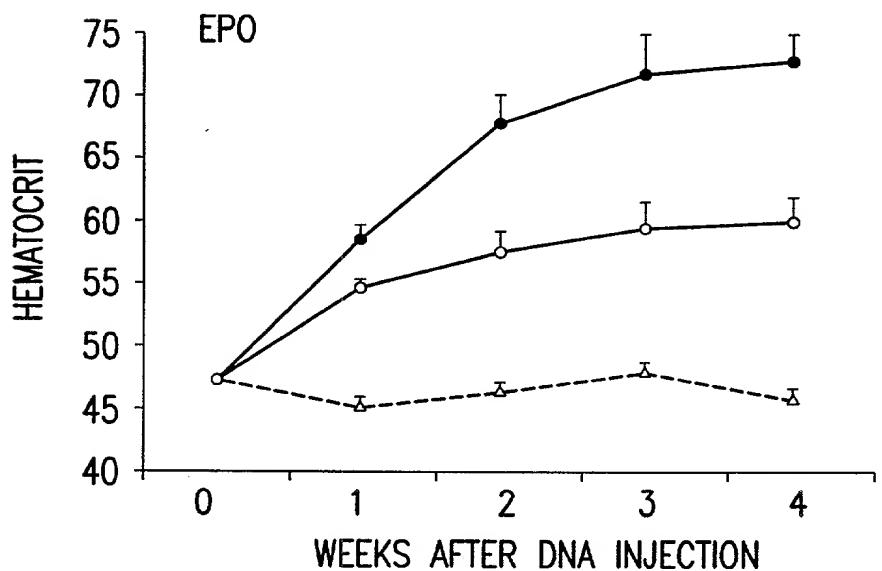


FIG. 5C

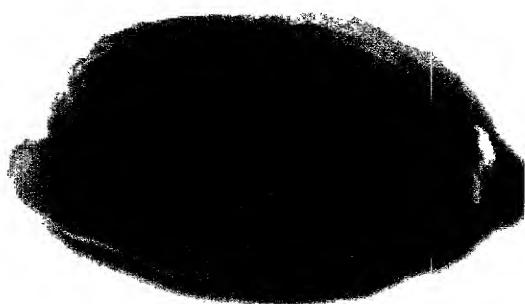


FIG.6A

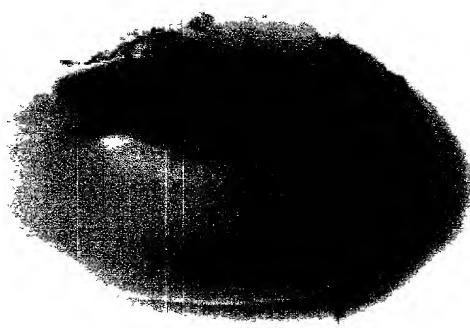


FIG.6B



FIG.6C



FIG.6D

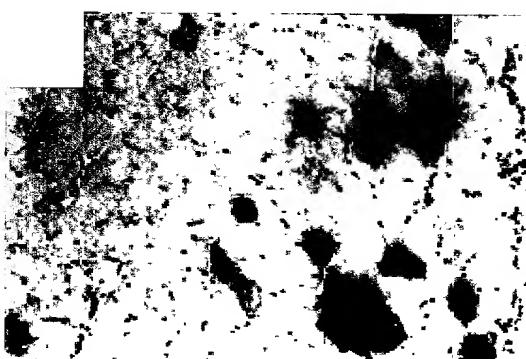


FIG.6E



FIG.6F

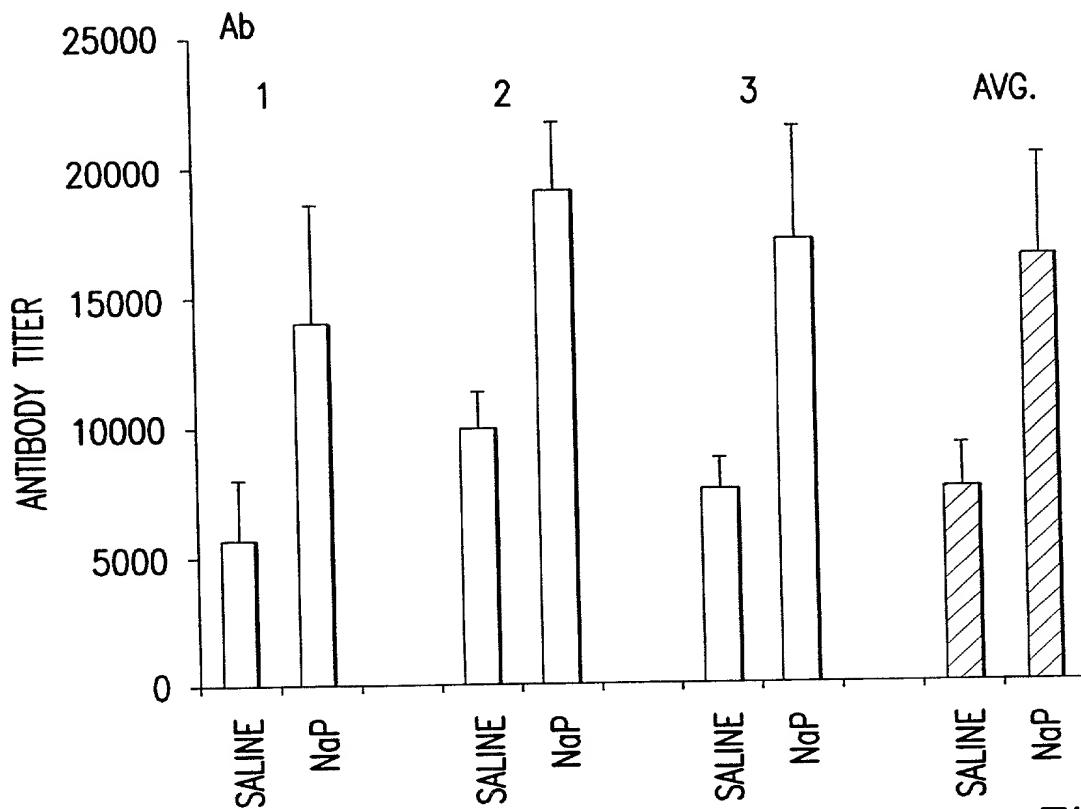


FIG. 7A

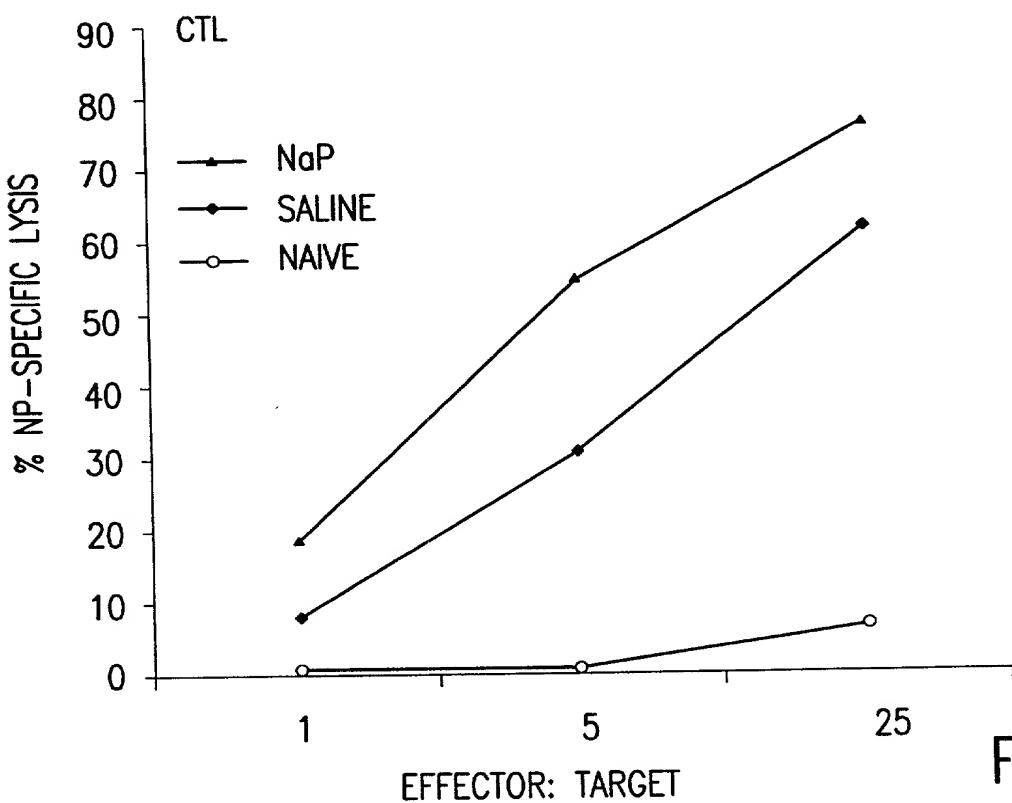


FIG. 7B

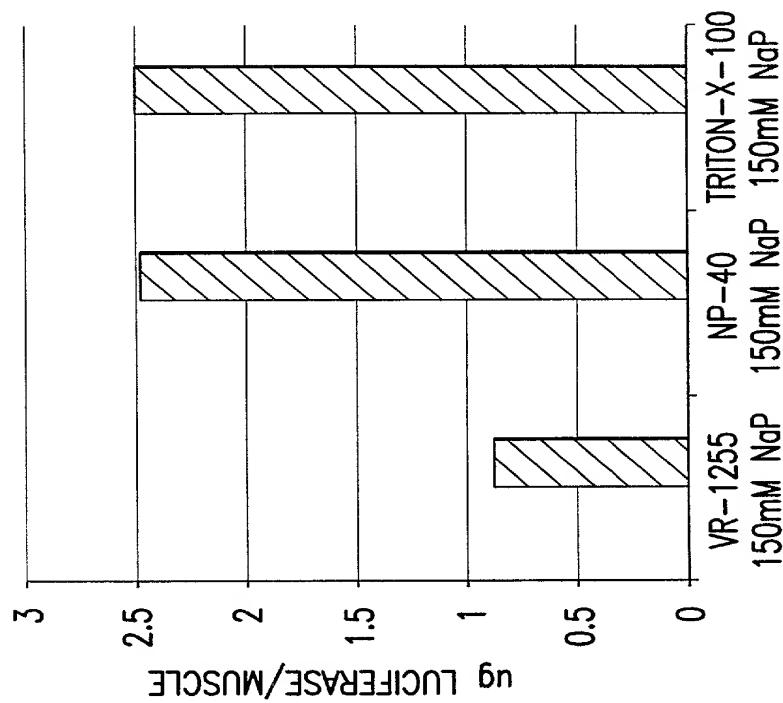
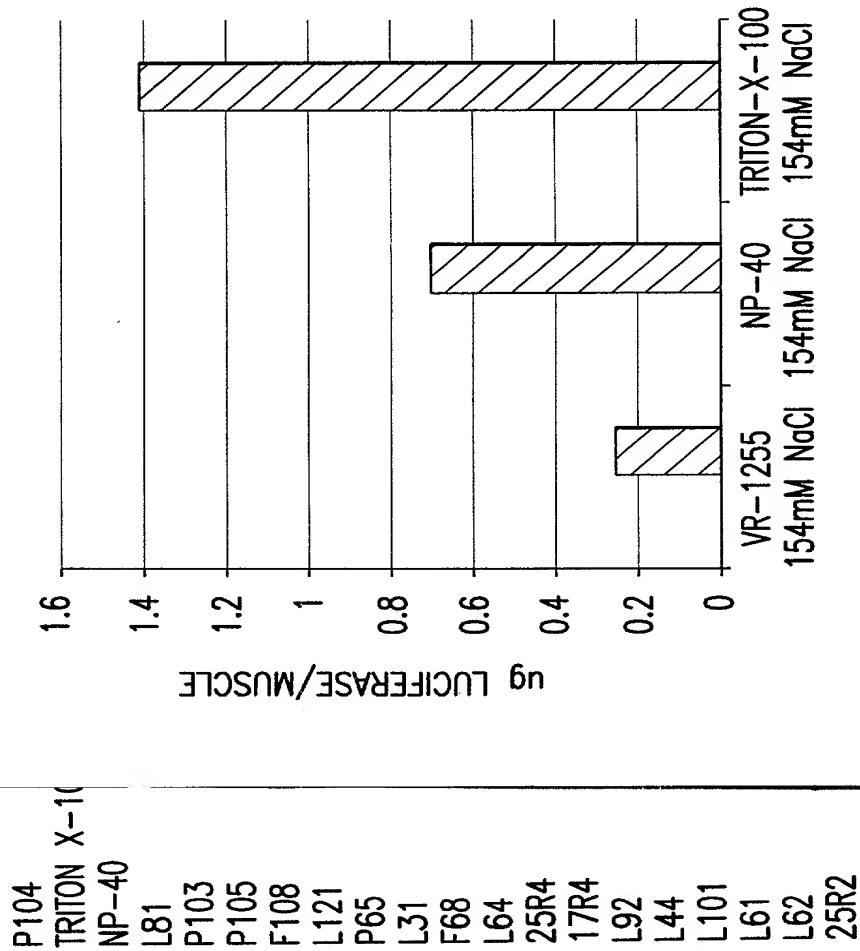


FIG. 9

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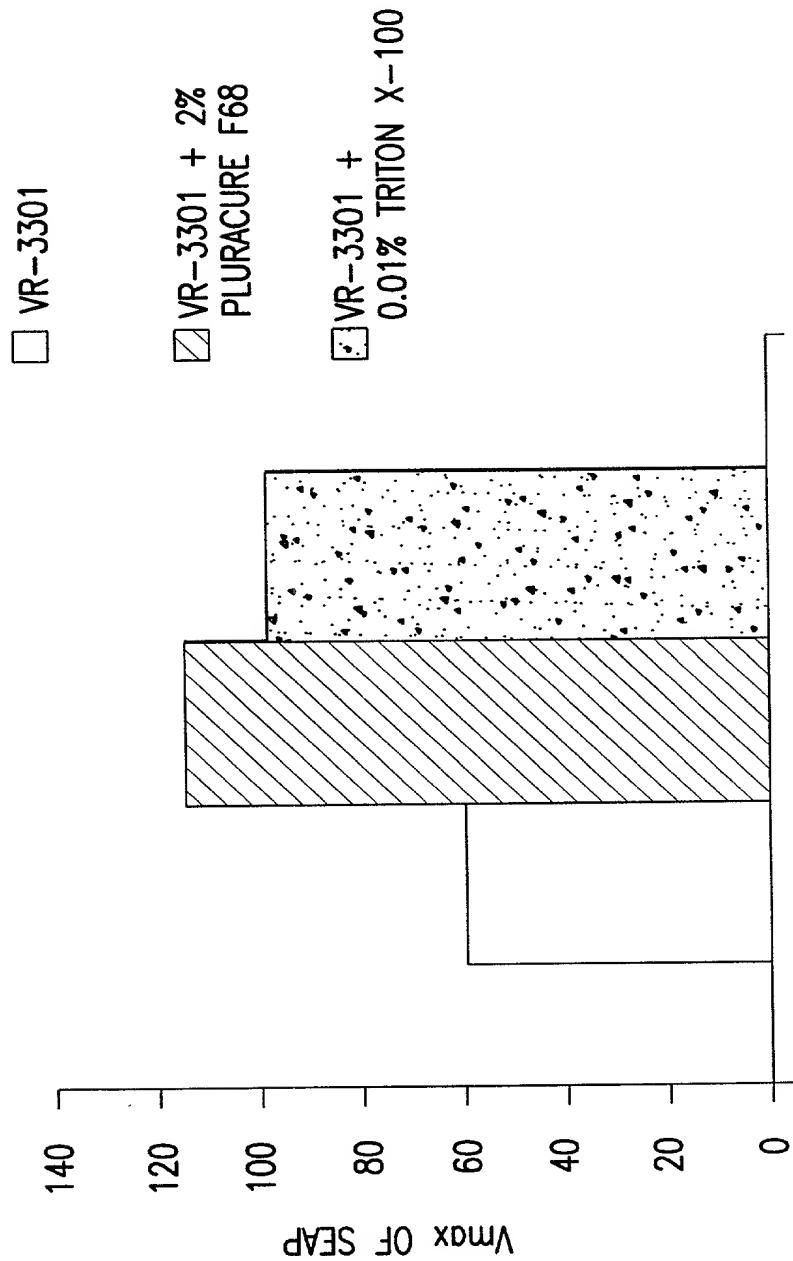


FIG. 11

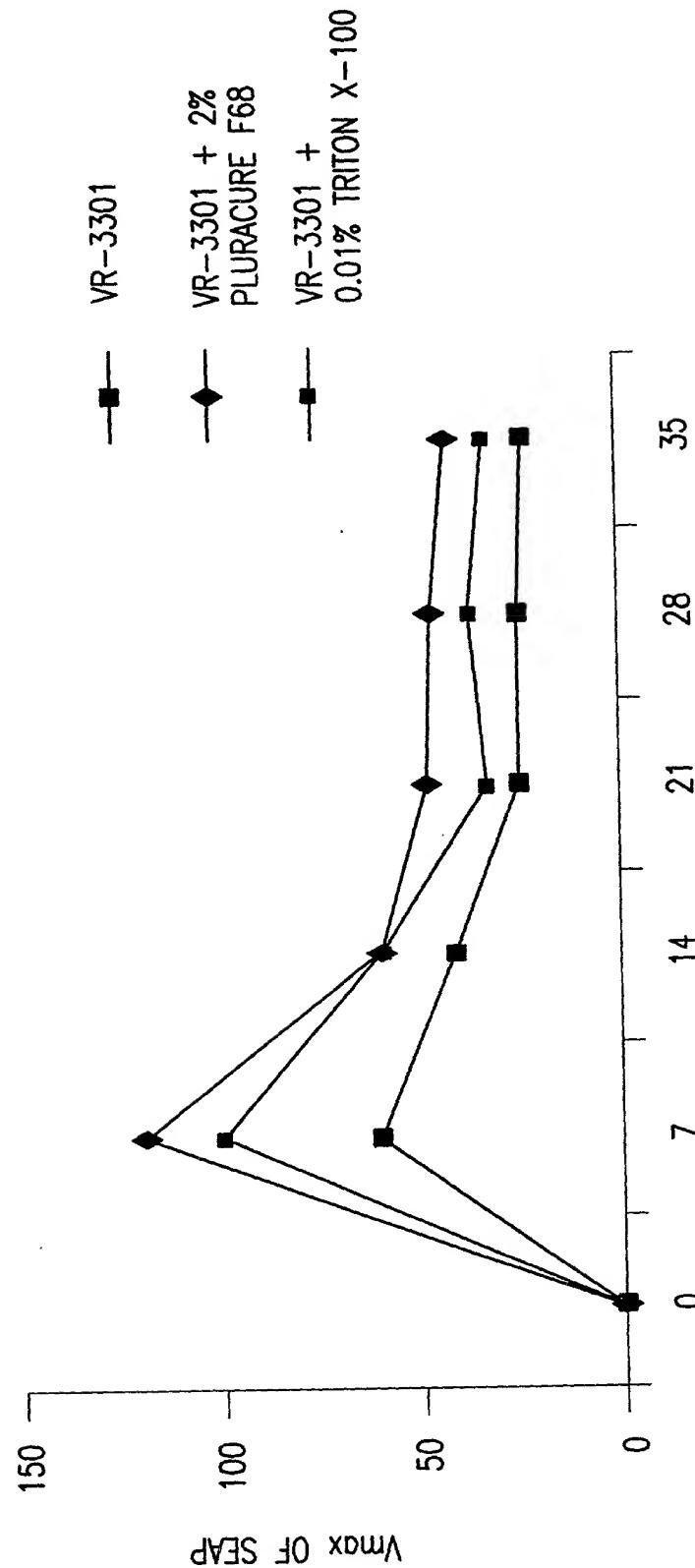


FIG. 12

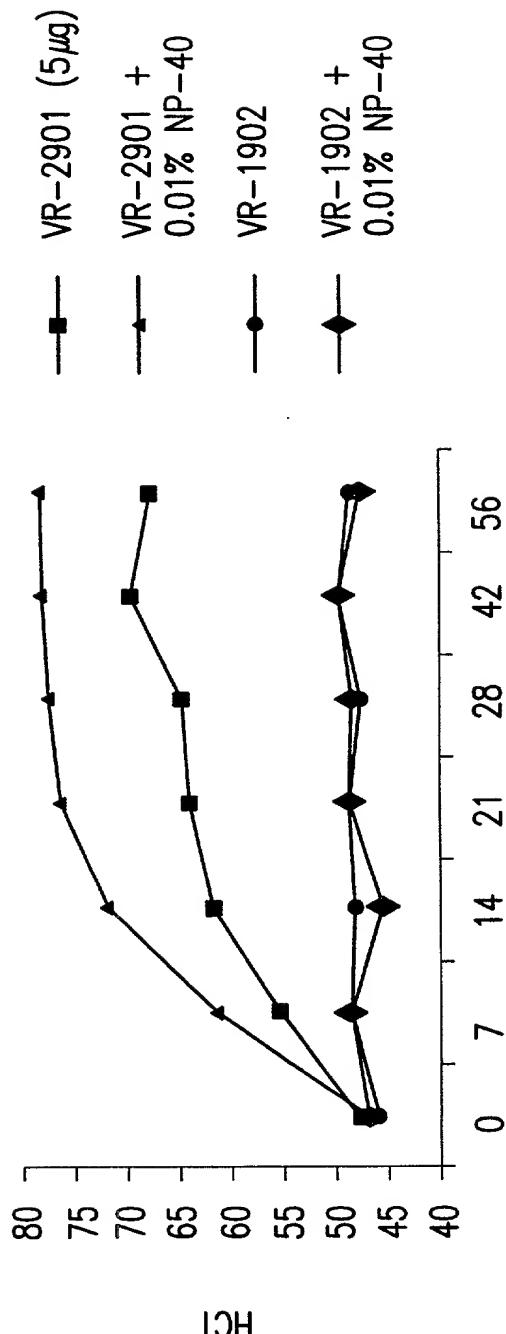
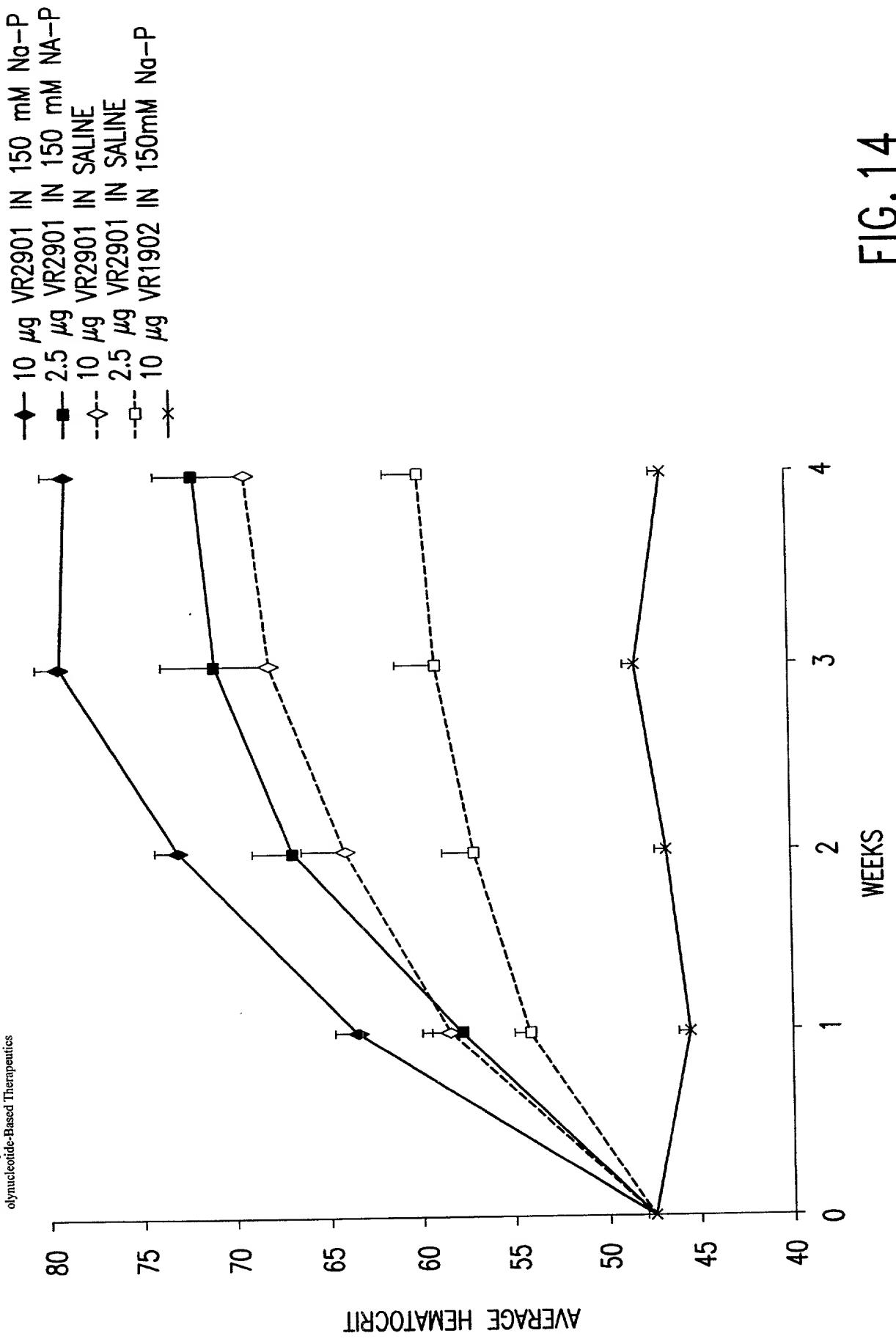


FIG. 13



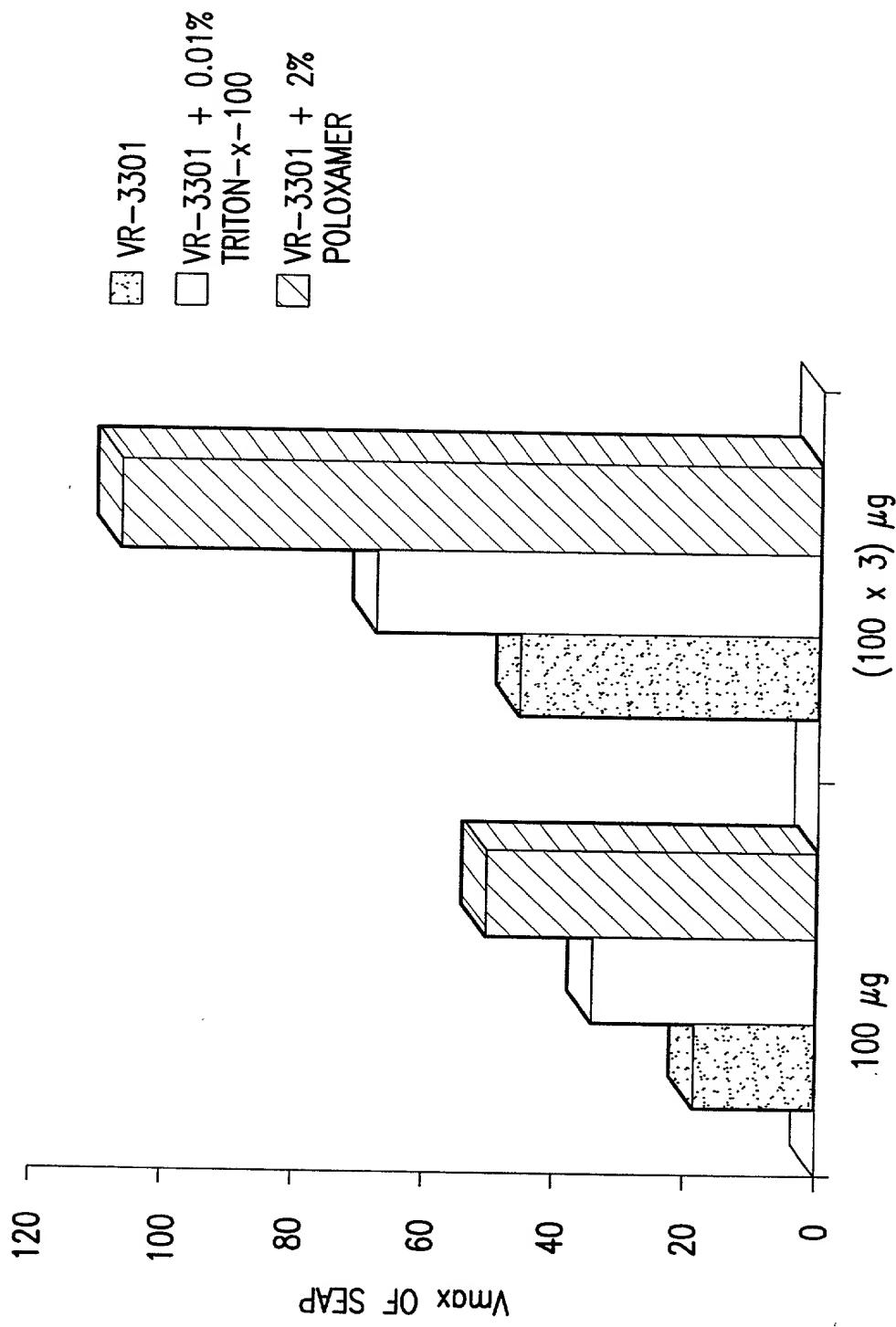


FIG. 15

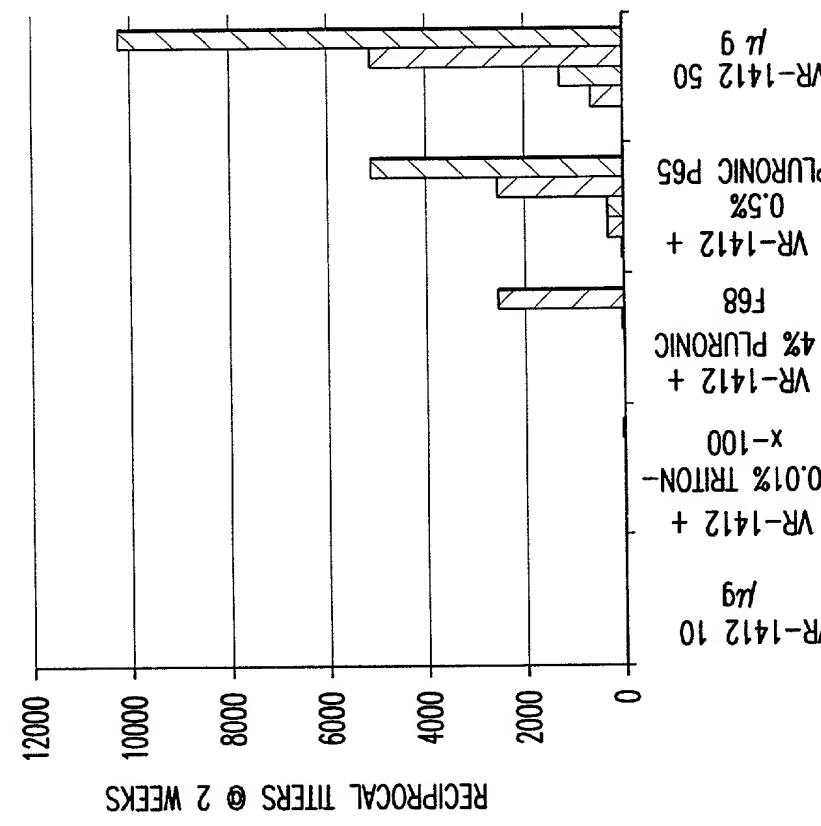


FIG. 16A

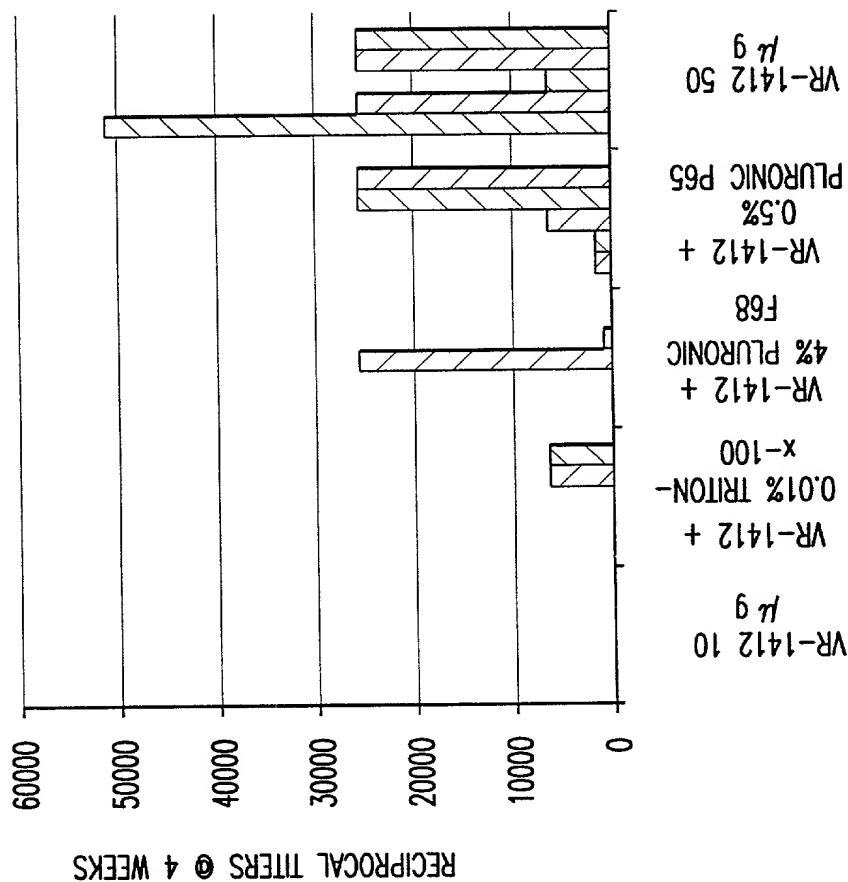


FIG. 16B

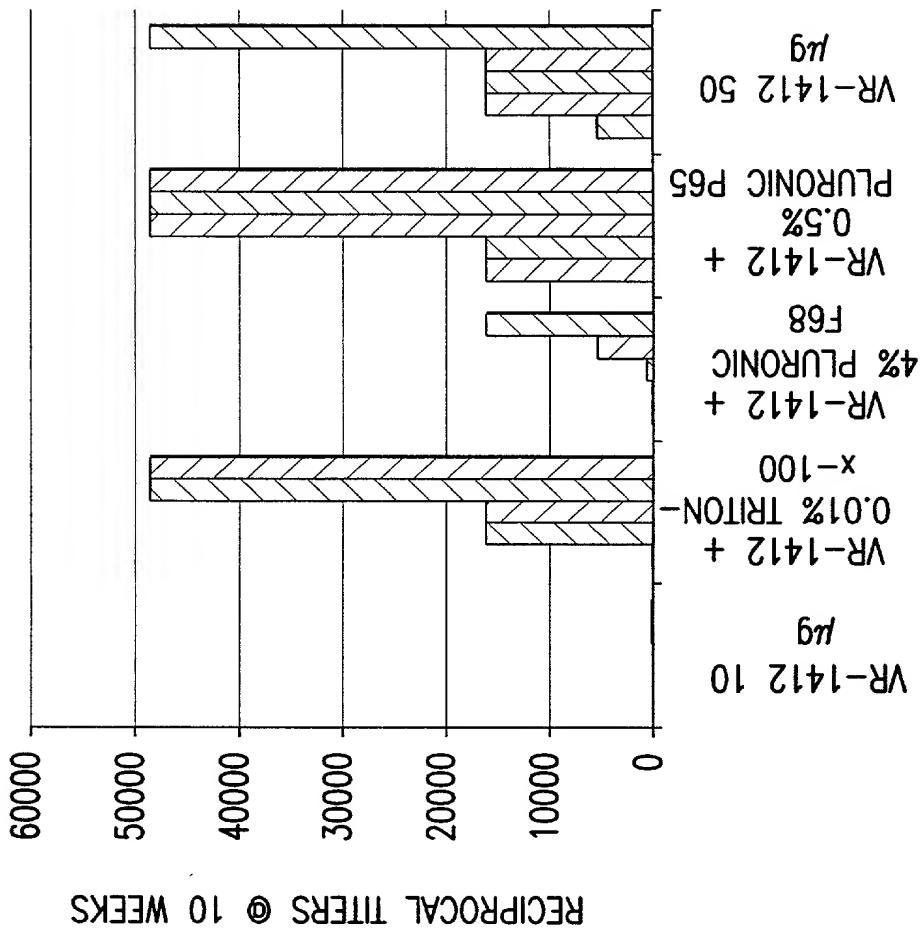


FIG. 16C

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CTL ACTIVITY IS NOT INHIBITED WHEN pDNA +  
POLOXAMER IS ADMINISTERED

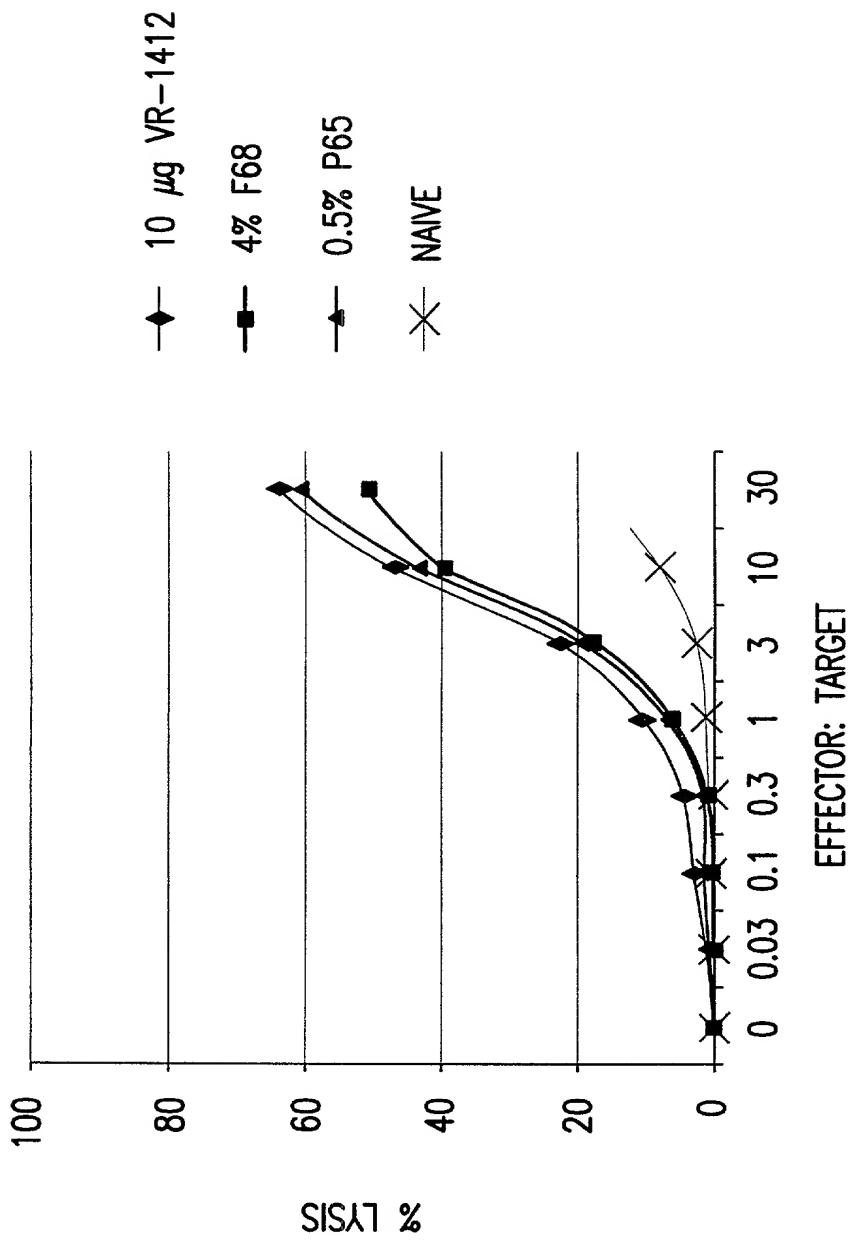


FIG. 16D

## CLE EFFECTS ON IFN $\alpha$ pDNA MEDICATED ANTI-TUMOR EFFICACY

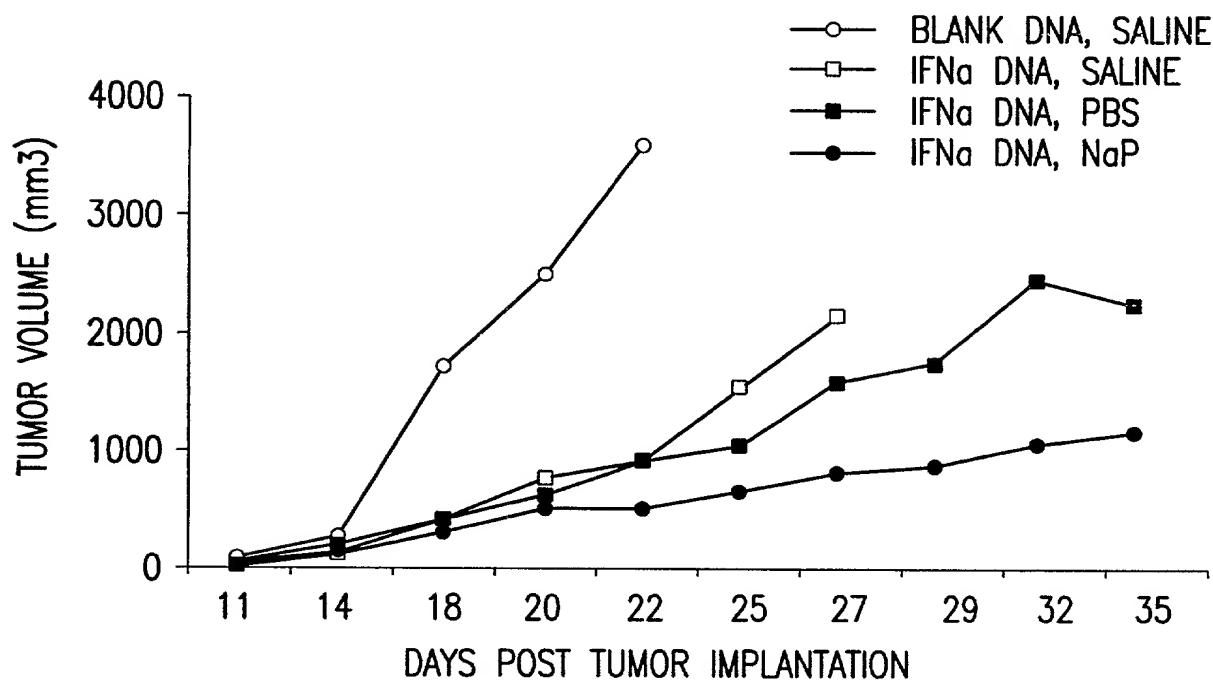


FIG. 17A

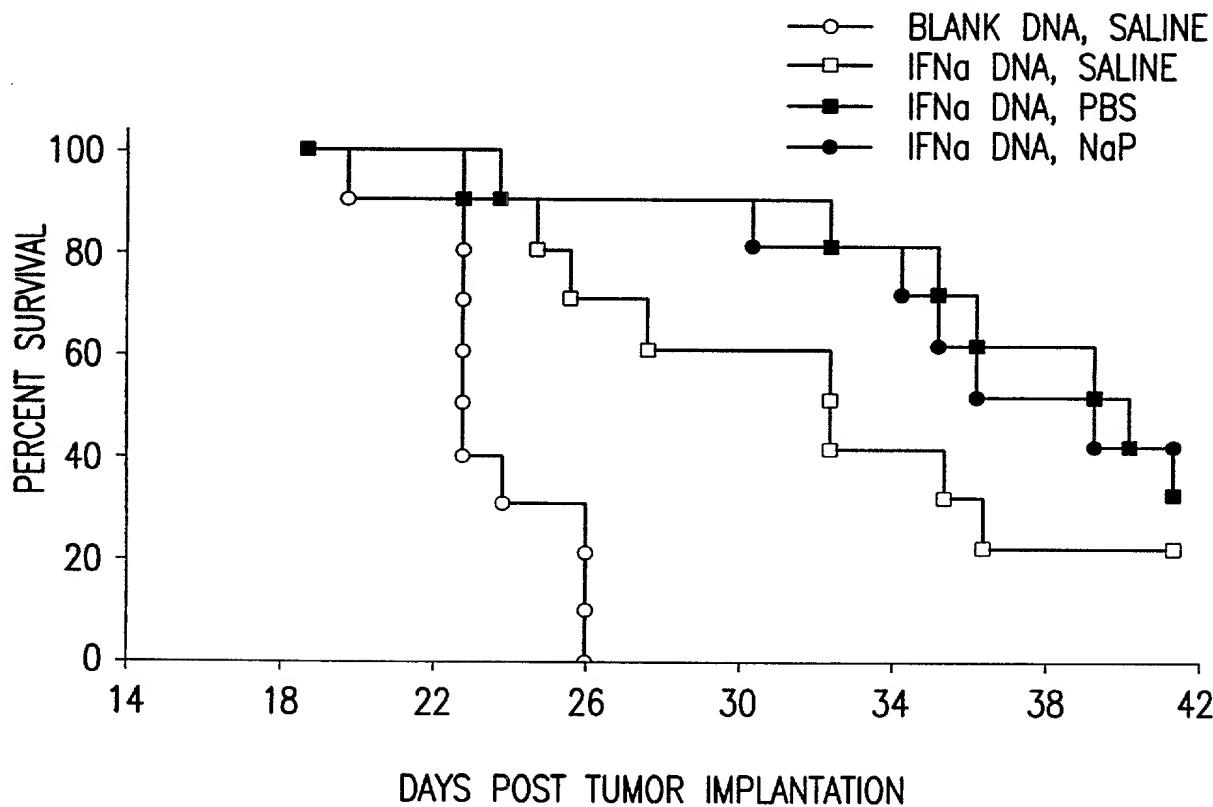
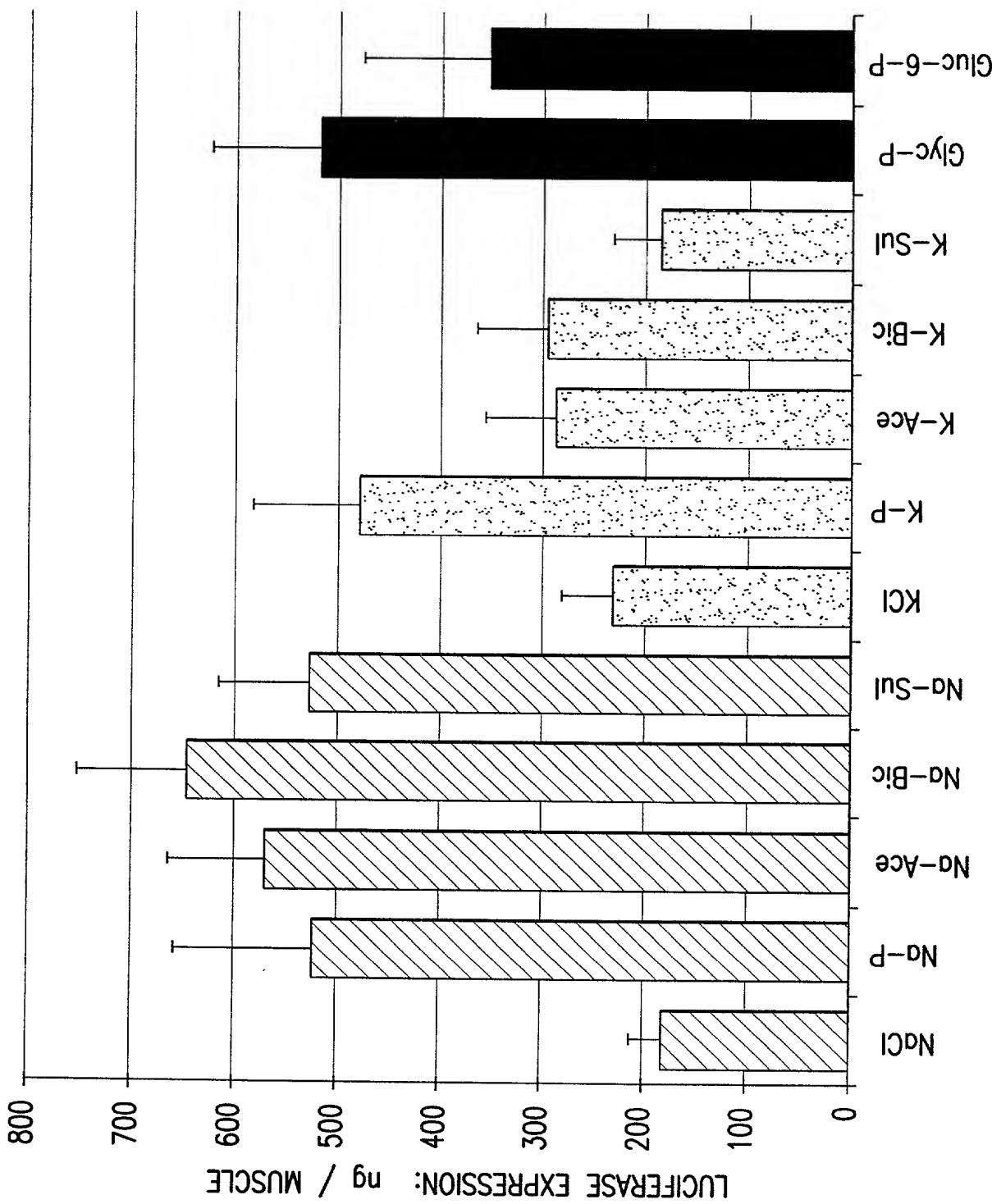


FIG. 17B

FIG. 18



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 Kt. No. 1330.0180002/ERK/SFH;  
 inventors: Mamahoppe et al.; Tel: 202/371-2600  
 file: Compositions and Methods for in vivo Delivery of  
 oligonucleotide-Based Therapeutics

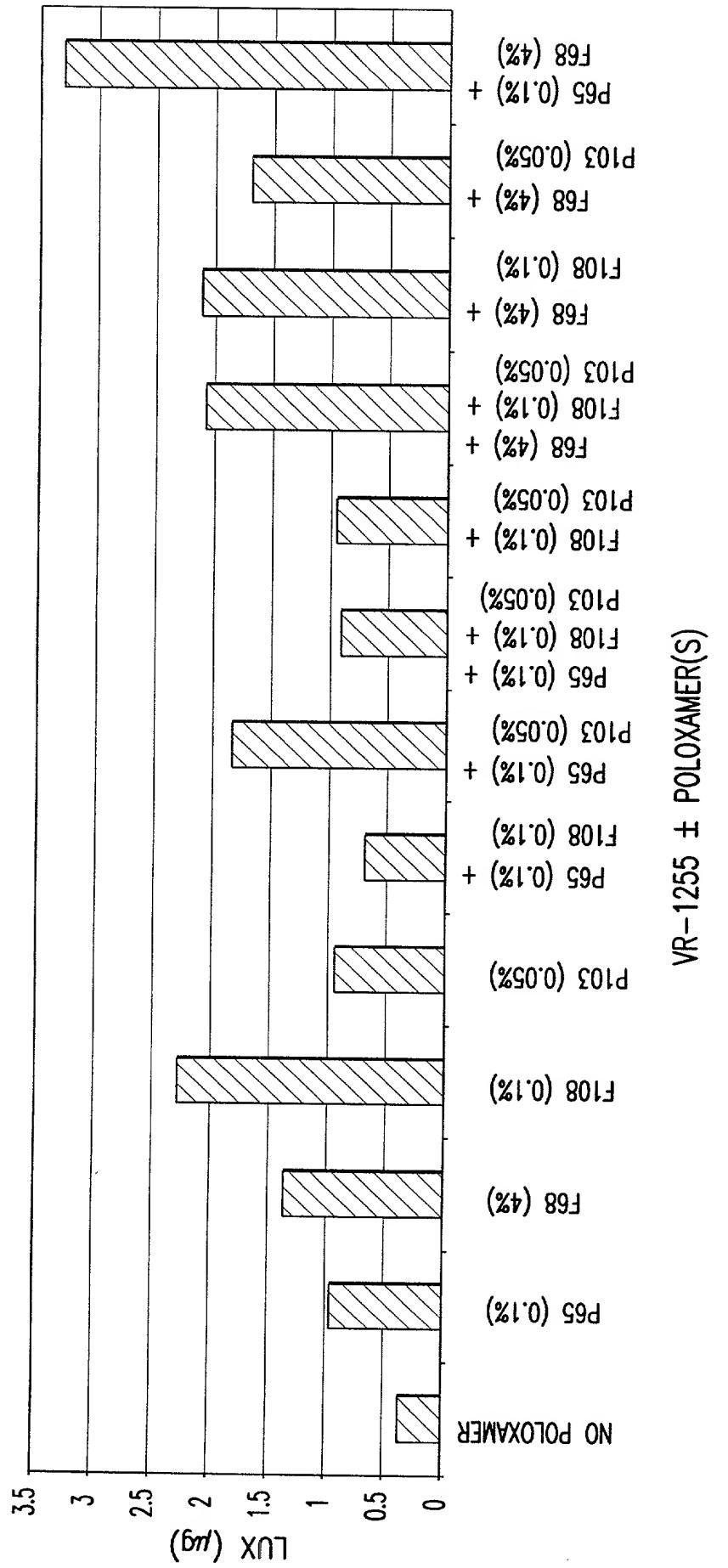


FIG. 19A

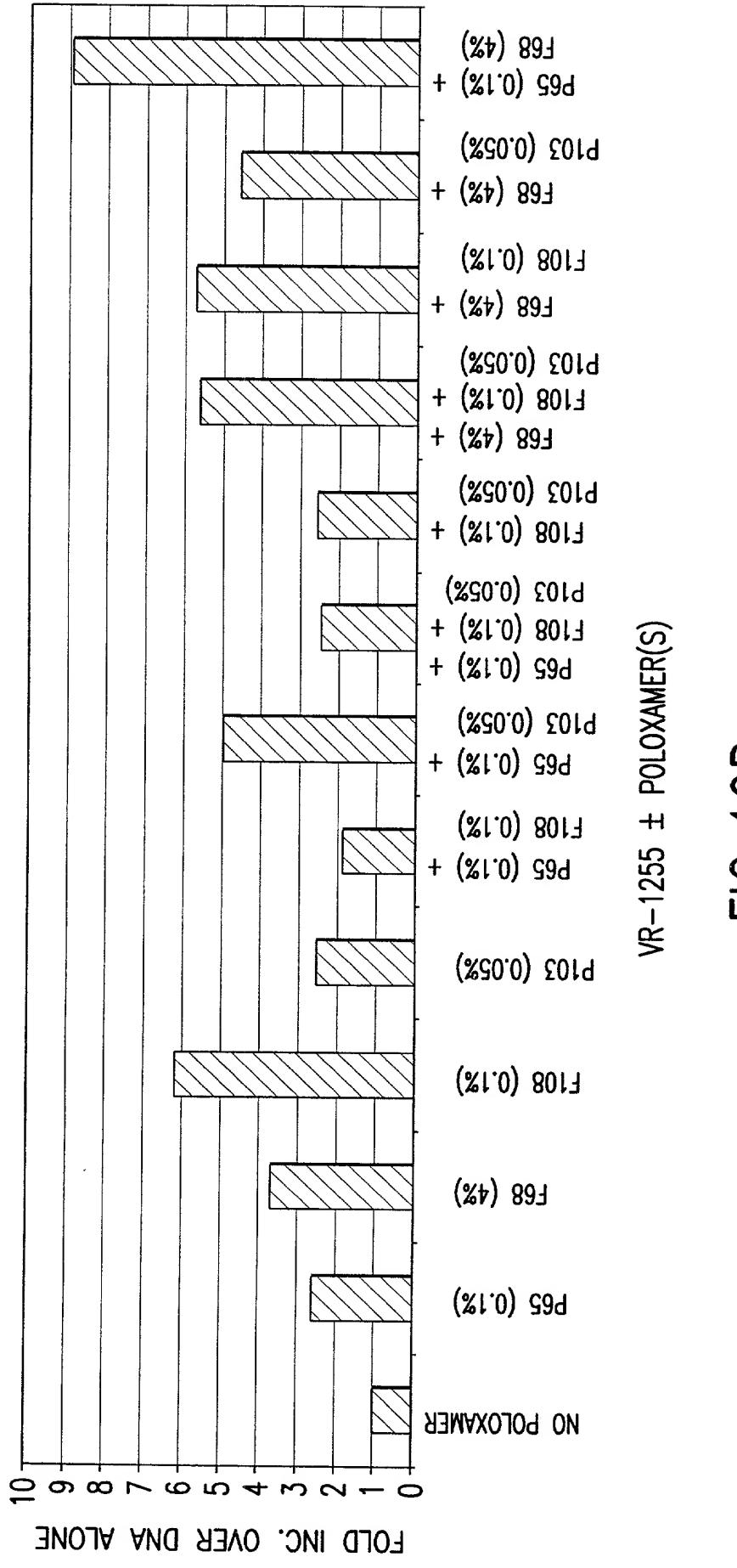


FIG. 19B

DAY 3 LUCIFERASE EXPRESSION AFTER INTRAMUSCULAR  
ADMINISTRATION OF VR1255  $\pm$  POLOXAMER (F68)

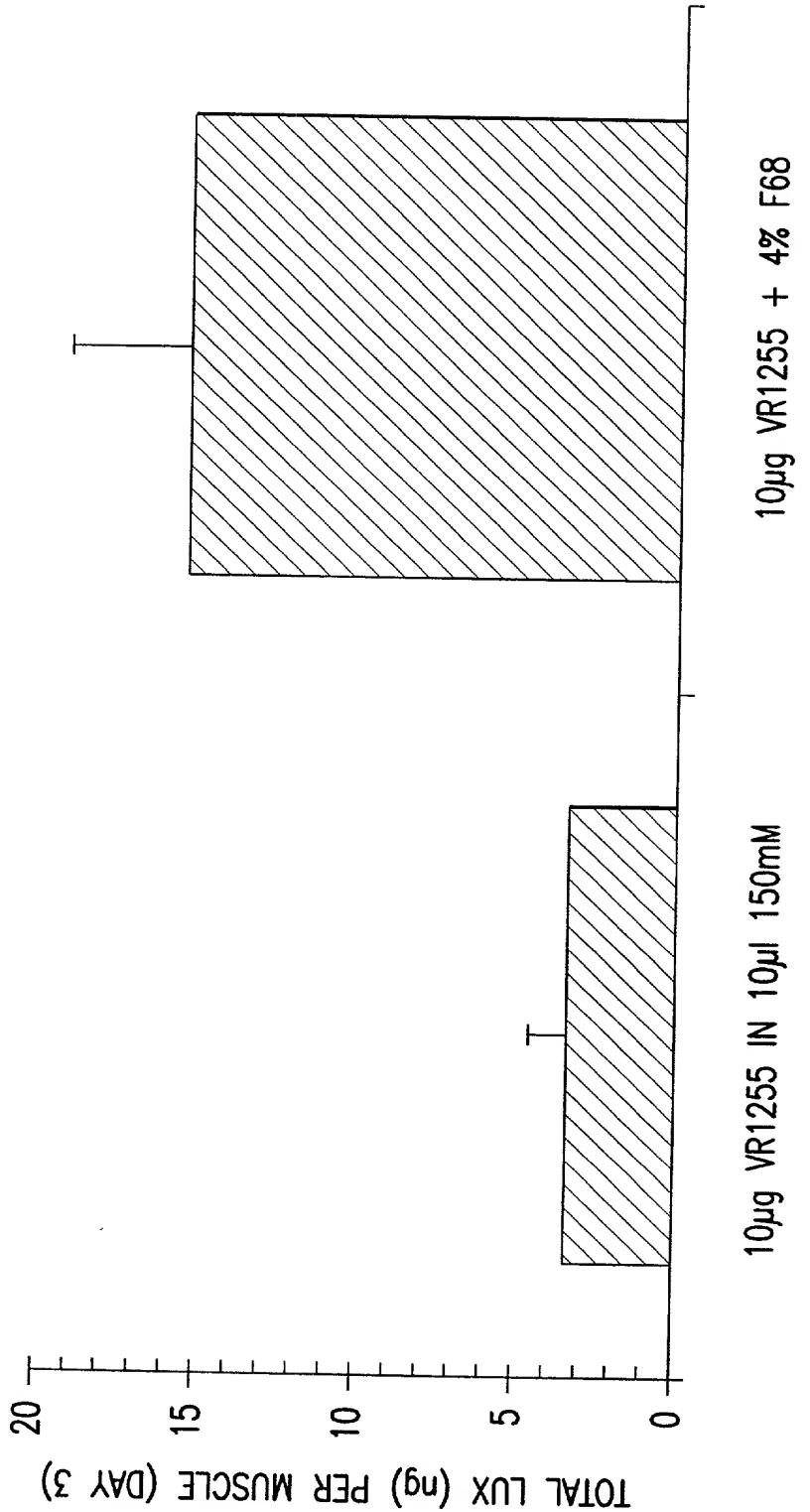
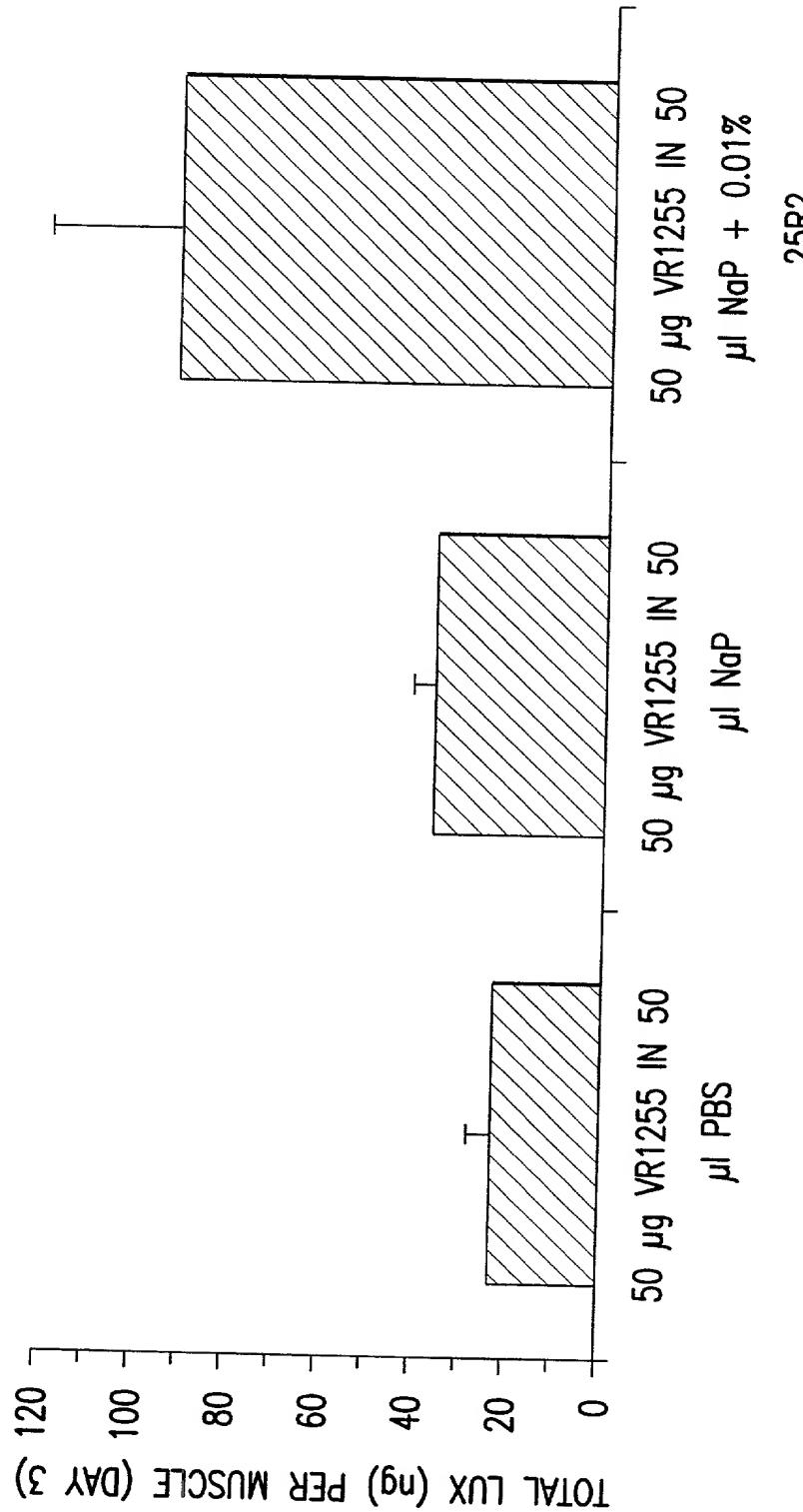


FIG. 20A

DAY 3 LUCIFERASE EXPRESSION AFTER INTRAMUSCULAR  
ADMINISTRATION OF VR1255  $\pm$  POLOXAMER (25R2)



HEMATOCRIT LEVELS AFTER A SINGLE DOSE (1  $\mu$ g) OF VR2901  
 $\pm$  POLOXAMER 25R2

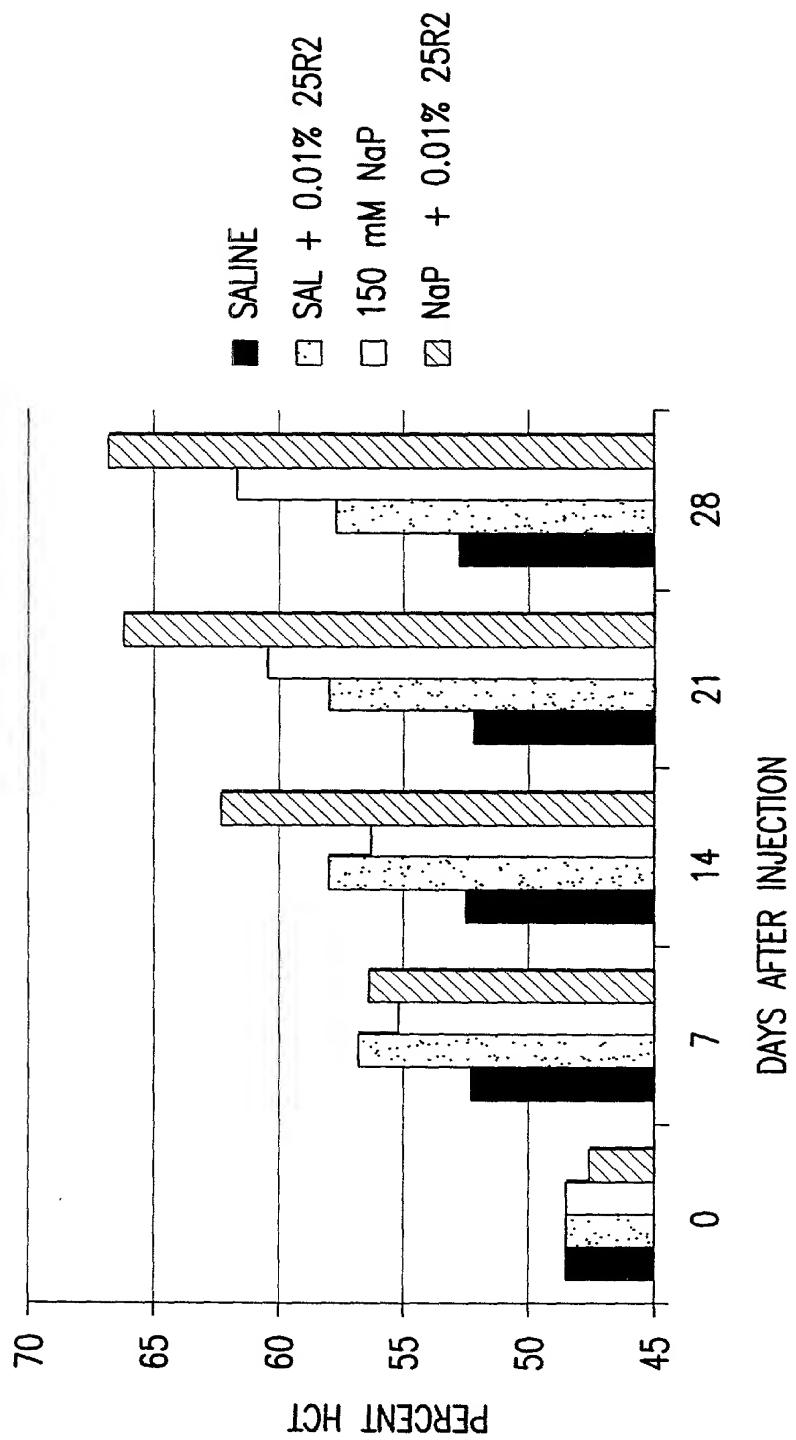


FIG. 21

HCT LEVELS AFTER ADMINISTRATION OF VR2996 + POLOXAMER F68

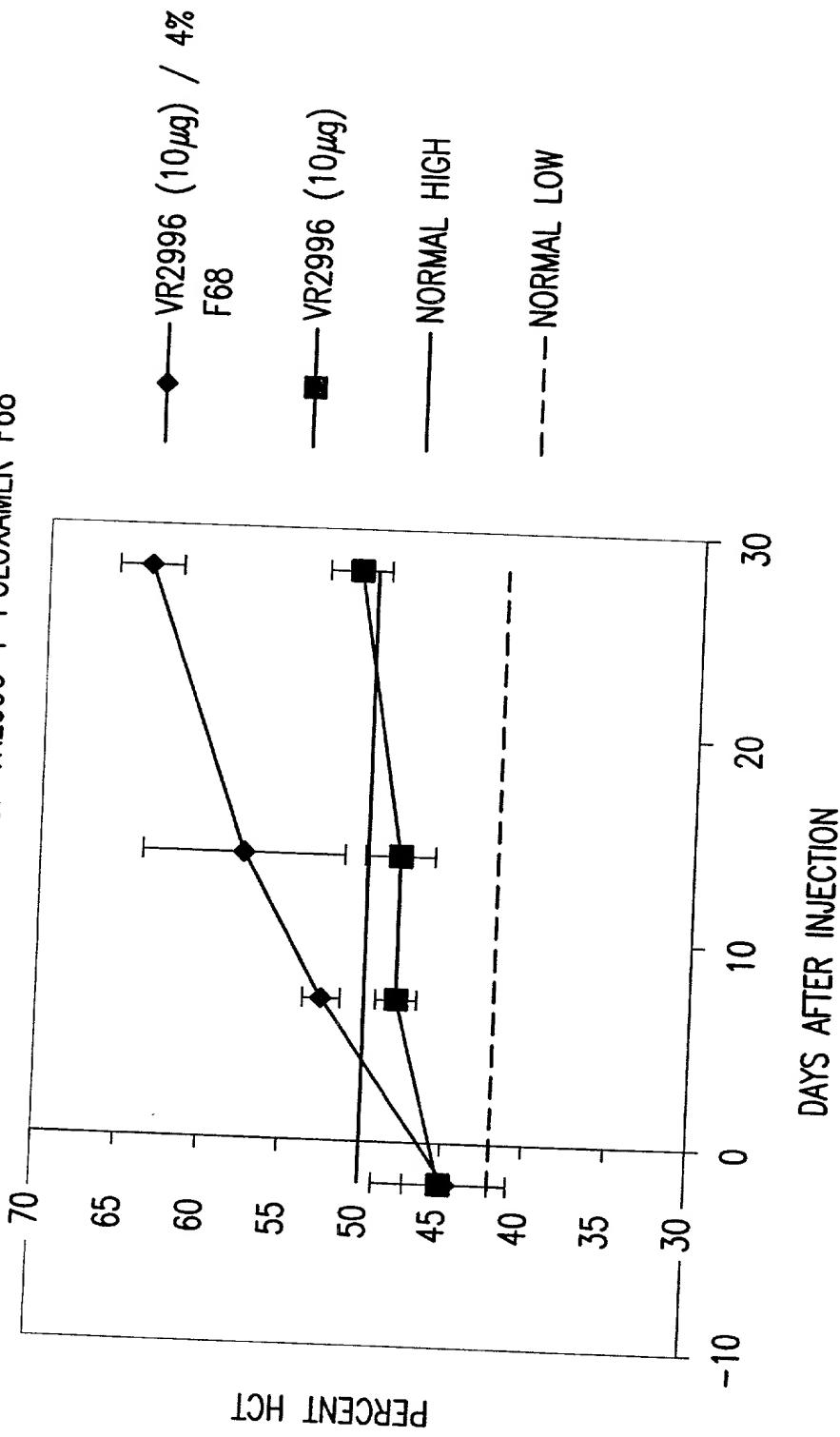


FIG. 22

DNA DOSE RESPONSE AFTER INJECTION OF VR1255 ± POLOXAMER  
(25R2)

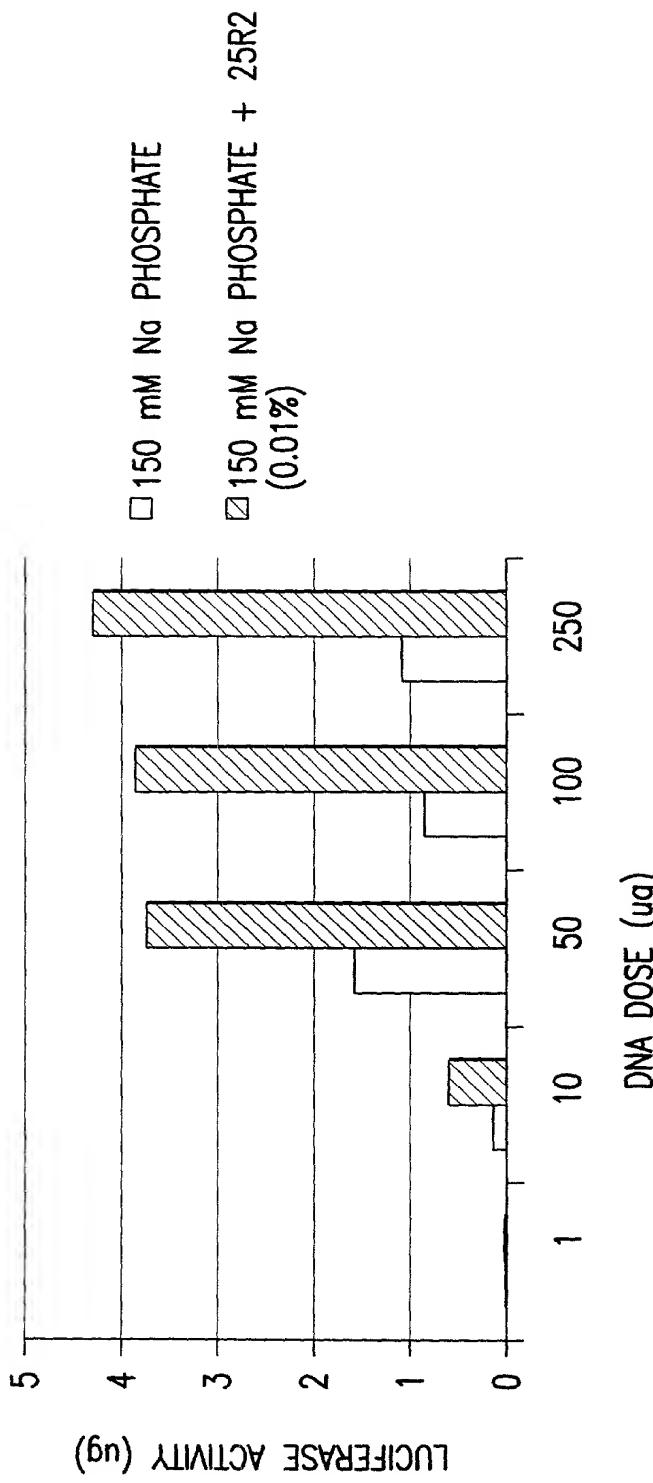
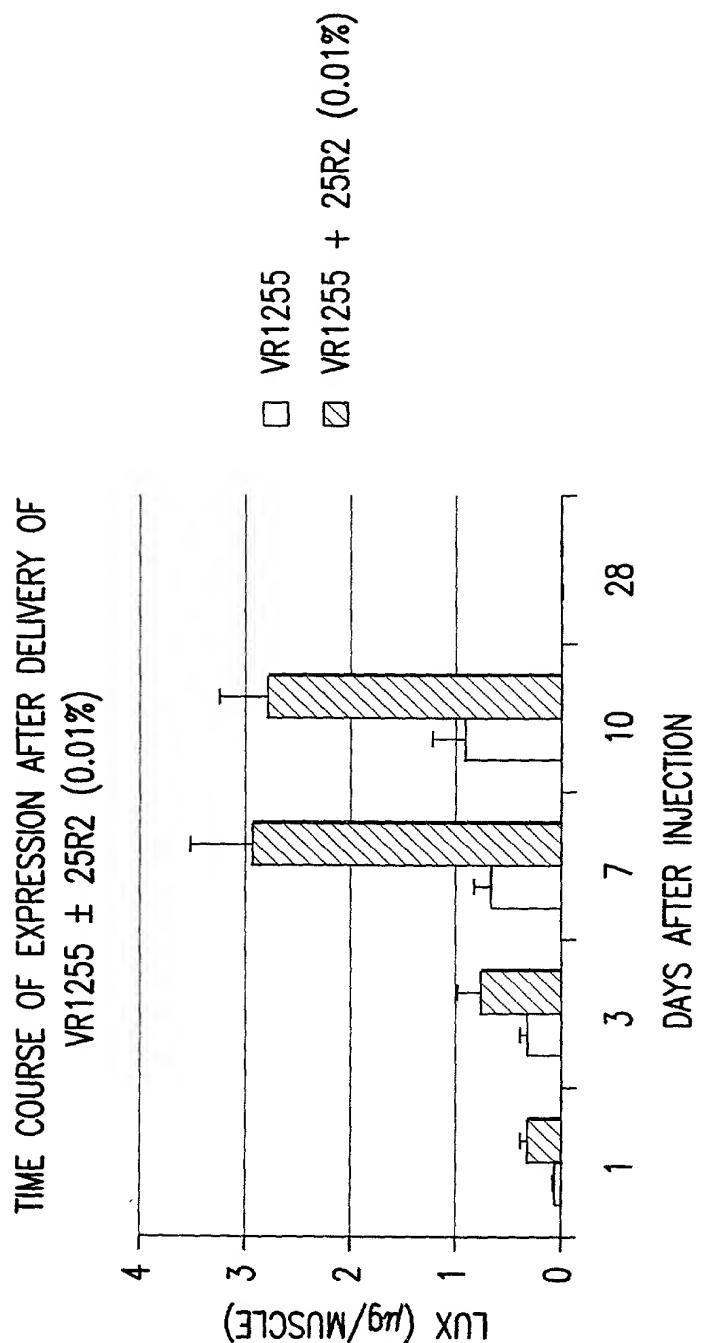


FIG. 23



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Inventors: Manthouche *et al.*; Tel: 202371-2600  
Title: Compositions and Methods for *in vivo* Delivery of  
Polymeride-Based Therapeutics

FIG. 24

TRANSFECTION OF MOUSE RECTUS FEMORIS WITH VR1412 (pBgal) ±  
POLOXAMER 25R2 (0.01%)

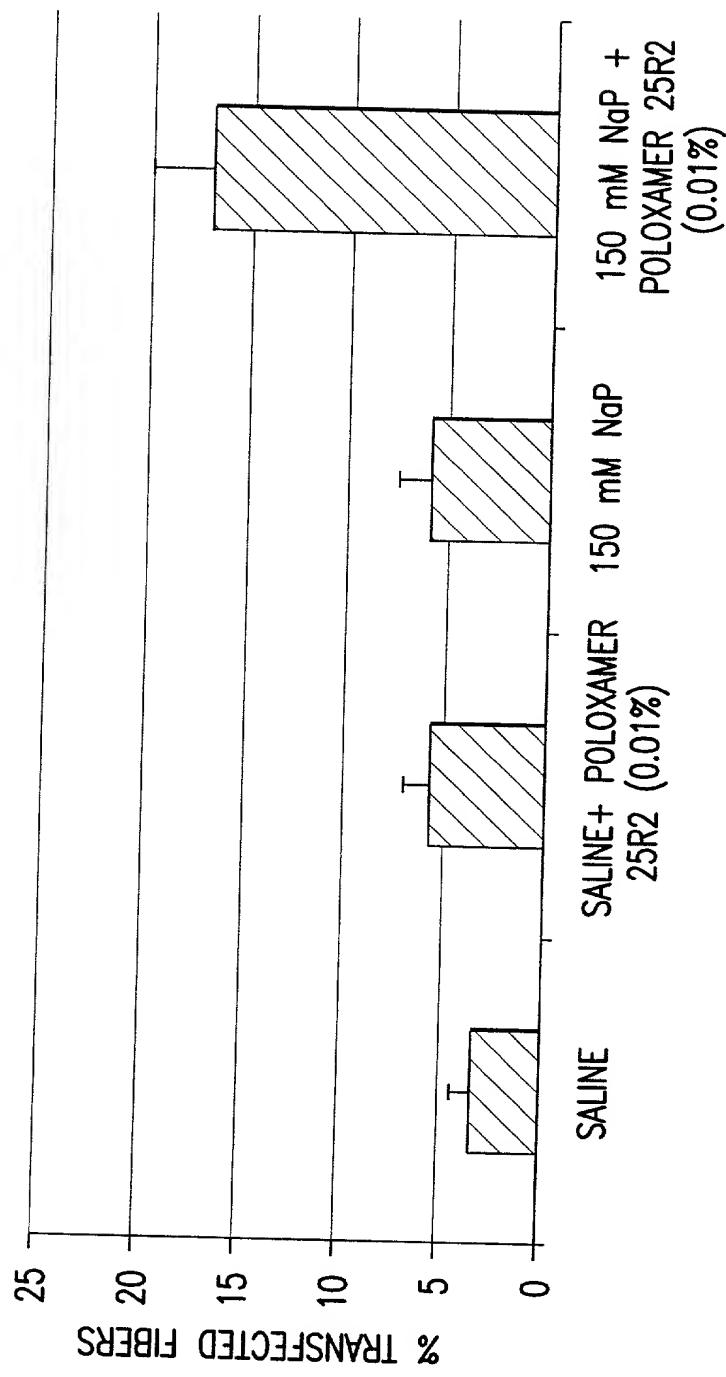


FIG. 25

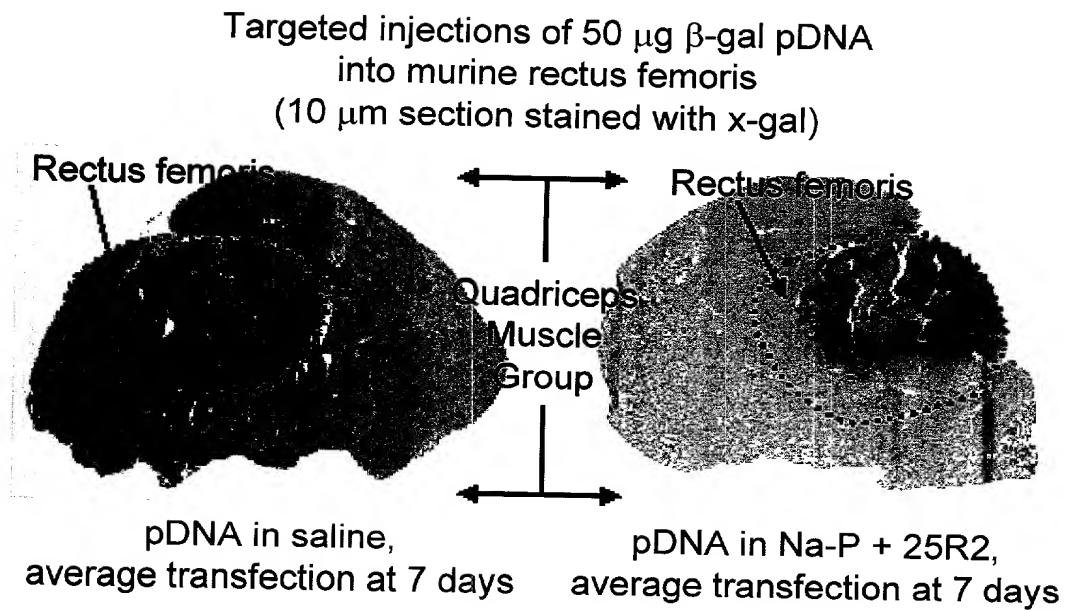


FIG. 26